

- Sub B1
- A
- c) amplifying the modified polynucleotide fragments to produce an amplification product for each sample of polynucleotide fragments;
 - d) isolating each amplification product; and
 - e) resuspending each amplification product to form a target solution representative of the corresponding first polynucleotide, wherein the target solution is suitable for application to a substrate to produce an array of polynucleotides.
- Add B6

These amendments are made without prejudice and are not to be construed as abandonment of the previously claimed subject matter or agreement with the Examiner's position. In accordance with the requirements of 37 C.F.R. § 1.121, a marked up version of the claims showing the changes, is attached as Appendix A. For the Examiner's convenience, a complete set of the currently pending claims is also provided as Appendix B.

REMARKS

Status of the Claims.

Claims 1-22 are pending in the application. Claim 1 has been amended to more clearly recite the invention. Support for this amendment is found in the specification at least at page 6, lines 4-7. Thus, the amendments add no new matter.

The Invention.

The invention relates to methods and compositions for preparation of target solutions useful for forming a polynucleotide array and an array so produced. In particular, the invention concerns preparing target solutions for polynucleotide arrays by amplification of the polynucleotides to be arrayed, i.e., the starting polynucleotides. Such target solutions can then be applied to a substrate and used in hybridization assays, e.g., to detect sample polynucleotides that hybridize to one or more of the starting polynucleotides. To provide reliable detection of sample polynucleotide sequences, the amplification product should be representative of the starting polynucleotides, so that starting polynucleotide sequences are present in the amplification product in approximately the same proportions as in the starting polynucleotides. Applicants discovered that the claimed method works surprisingly well in this respect, producing target solutions that when hybridized side-by-side with